AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Cell Specialisation and Differentiation Questions

Name:

M M E

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Total Marks: /26

Q1: What is a specialised cell?

_____

_____(1 mark)

Q2: Give 2 examples of specialised animal cells.

1:_____

2:_____

(2 marks)

Q3: Give 2 examples of specialised plant cells.

1:_____

2:_____

(2 marks)

Q4: Explain how a sperm cell is specialised to its function

_____

_____

_____

_____(2 marks)

Q5: Explain the role of the synaptic knob in a nerve cell and give an example of its function.

_____

_____

_____

_____(2marks)

Q6: What 2 types of action can a nerve cell control?

1:_____

2:_____

(2 marks)

Q7: There are 3 types of muscle cell. Draw and label the 3 types of muscle cells.

(6 marks)

Q8: Describe the specialist function of a Xylem cell.

_____

_____

(1 mark)

Q9: Describe the specialist function of a Phloem cell.

_____

_____

(1 mark)

Cell Differentiation Questions

Q10: Phloem contains fewer organelles, than other cell types. Discuss why, relating this to their specialised function.

(2 marks)

Q11: Explain why cell differentiation is important in human cells.

(2 marks)

Q12: Give an example of human cell differentiation.

(1 mark)

Q13: Human cells differentiate early on in their development. Plant cells however can differentiate throughout their life span. Explain why and give an example of plant cell differentiation.

(2 marks)